

PACKAGE ID - 000171IPCAT01 ADASAGE4.0

KWIC TITLE - Ada Application Development System

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LIMITATION CODE -UNL **AUDIENCE CODE** - UNL

COMPLETION DATE - 11/01/1991 **PUBLICATION DATE** - 10/01/1990

DESCRIPTION - ADASAGE4.0 is an application development system designed to facilitate rapid and professional construction of applications written in Ada on microcomputers. Applications may vary in size from small to large multiprogram systems. ADASAGE4.0 consists of a collection of re-usable libraries for database management and form and report processing utilities having the following capabilities: basic universal type and function definitions; sequential file input/output; terminal and file input/output; DOS system command execution; data movement and fill; string manipulation; math libraries; bit manipulation; a relational database utility; data validation; menu form and window procedures; report generation; sort/merge, time, and date functions; sound production; editing; and index rebuilding. These capabilities are integrated to allow the development of an efficient system. As an application is designed and developed, ADASAGE capabilities are selected and included along with any requirements unique to that application.

PACKAGE CONTENTS - Media Directory; Software Abstract;

SOURCE CODE INCLUDED? - No

MEDIA QUANTITY - 10 3.50 Diskettes

METHOD OF SOLUTION - All ADASAGE applications which use the database, forms (windows, menus, etc.), or reporting functions require a file with a suffix of .DFL. This file contains the database schema, the various forms and windows, and report definitions. The THOR editor is used to create and maintain the .DFL file. This editor operates on a file with the suffix .SRC and creates and edits schemas, forms, and report formats and compiles the .SRC file into the .DFL file used by the application. The application will have unique requirements not satisfied by the selected utilities of ADASAGE. The code for these along with the code necessary to import and use the selected ADASAGE utilities constitutes the programmed application. The completed application system will contain the .DFL file produced by the THOR editor, the required ADASAGE utilities,

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METHOD OF SOLUTION - (CONT) and the programmed application. During the course of normal database development and use, restructuring and/or rebuilding of database files may be required if the schema for a record is modified (new fields are added, changed, or deleted and new keys selected, etc.), or if the index file for a relation becomes damaged or is destroyed. Program REBUILD performs this task. The rebuilding process is invoked by supplying both an old .DFL file name identifying the schema definition under which the current data was written and a current .DFL file name identifying the new schema definition to which the current database must be changed. REBUILD compares the old and current schema definitions for a relation, adjusts the database files accordingly, and retags the database files with the new version so that access with the new schema is allowed. The index file for the relation is then rebuilt, and any unused space within the database files removed.

COMPUTER - IBM PC/AT

OPERATING SYSTEMS - MS-DOS 3.1

PROGRAMMING LANGUAGES - Alsys ADA 4.33 (92%) and Assembler (8%)

SOFTWARE LIMITATIONS - Maxima for each ADASAGE database are, 4,294,967,000 records (tuples) per record size, 32,000 bytes record (tuple) size, 32,000 fixed-length field (attribute) size, 4,294,967,000 variable-length field (attribute) size, 1,000 relations (flat files), 1000 joined relations, 1,000 views, 500 fields (attributes) per relation, 500 keyed fields per relation, 6,550 forms (windows), 55 significant digits in a number. The user's operating system or hardware may have more stringent limits than these.

SOURCE CODE AVAILABLE (Y/N) - N

OTHER PROG/OPER SYS INFO - The Alsys Ada 4.33 compiler is required. Earlier releases of ADA (i.e., 4.2,4.23, etc.) are incompatible with ADASAGE4.0. The ADASAGE reference documents are written in ARC format and, when extracted, must be printed with WORDPERFECT.

HARDWARE REQS - ADASAGE4.0 requires an IBM PC compatible 80286 or 80386 machine with at least 4 Mbytes RAM, a math coprocessor, and a fixed disk drive. The ADASAGE library requires 6.5 Mbytes of disk storage.

REFERENCES - Howard D. Stewart and Kenneth D. Russell, AdaSAGE ADA Application Development System, EG&G report, October 1990.

ABSTRACT STATUS - Abstract first distributed January 1990. IBM PC/AT version submitted November and December 1989, replaced November 1991 by ADASAGE3.1. ADASAGE4.0 submitted May 1992.

SUBJECT CLASS CODE - P

E S T S C
ENERGY SCIENCE & TECHNOLOGY SOFTWARE CENTER
SOFTWARE ABSTRACT

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KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
A CODES
ADA
PERSONAL COMPUTERS

EDB SUBJECT CATEGORIES -

990200 990300

SPONSOR - DOE/IO;NRC/RES;DOD

PACKAGE TYPE - SCREENED